The Many Benefits of Community-Based Conservation

Cattle bunching promotes healthier pastures and attracts grazing wildlife. (USAID/Riccardo Gangale)

In 1990, Namibia became the first African nation to incorporate environmental protections into its constitution.

Before Namibia's 1990 independence, tourism was controlled by a private minority group. Locals received little benefit from tourism, and few had incentives to conserve. Namibia's wildlife populations plummeted as poaching and droughts increased.

Then Namibia's government made another bold move. With the help of the U.S. Agency for International Development (USAID), it shifted the rights and responsibilities of managing wildlife and land onto local communities.

Known as Living in a Finite Environment, or LIFE, this project brought together the Namibian government, USAID, the World Wildlife Fund and several local partners. Together, they provided conservancies with technical support, training, grants and regional coordination.

To become a conservancy, communities had to define their borders and membership, establish a governing committee, develop a benefit distribution plan and adopt a legal constitution. In return, they earned the rights to hunt animals for their own use, manage protected game and permit trophy hunting within a quota.

Today, nearly one in four rural Namibians belongs to a registered conservancy. Wildlife is a valued asset. Poaching is no longer acceptable, and many native species have thrived.

LIFE has become a model. In 2004, USAID helped launched a similar project in Kenya called the Northern Rangelands Trust (NRT), an organization that includes pastoralists, landowners and the Kenyan government. Both projects illustrate the benefits of community-based conservation.

Thriving wildlife

Conservancy members know the more wildlife they have, the more tourists they can attract. Elephant sightings in Kenya's Sera Conservancy, for example, increased 366 percent after NRT's establishment.

What's more, less than a third of elephant deaths on NRT's conservancy lands are caused by poaching — a stark contrast to the 87 percent caused by poaching outside the conservancies. That's partly because poaching is seen as taking away from the community, and locals are more likely to report poachers.

Healthier lands

Many conservancies have instituted new land management practices. One such practice, cattle bunching, lumps herds of cattle in one place for grazing instead of allowing them to spread out. This

helps break up the hard soil while giving the unused land time to heal. Once the cattle have eaten through one patch, herders move them onto another, allowing the first patch time to recover.

These improved grazing practices have resulted in fatter cattle and higher incomes. By 2012, conservancy pastoralists had sold $1.17 million of cattle.

More jobs

Conservancies can partner with private companies to open safari lodges, sell trophy hunting licenses to professional hunters and make handicrafts such as jewelry.

In Namibia, LIFE has created 547 full-time and 3,250 part-time jobs. In Kenya, women from NRT conservancies sold $85,000 worth of jewelry in 2011 alone. In fact, NRT conservancies earn more than $1 million every year from tourism, livestock and jewelry.

Greater development

Any money the conservancies make is shared among the members. Many conservancies use this money to compensate pastoralists who've lost livestock, to subsidize education for its members and to start new projects like growing cash crops.

In most conservancies, about 60 percent of gross income is put toward development projects such as increasing access to water or improving road infrastructure.

Better governance

For USAID, the process matters as much as the product. It's not just about conserving wildlife or creating jobs. By encouraging inclusive decisionmaking, LIFE and NRT are cultivating good governance.

Through community-based conservancies, locals are learning how to hold their representatives accountable — and how to replace them when necessary. Meanwhile, representatives are learning how to manage resources and funds on behalf of their members.

To Develop Ecotourism, Protect Wildlife

Faye Ndiaga explores Senegal's ecosystems by canoe. (Courtesy of Faye Ndiaga)

From his canoe, Faye Ndiaga surveys the mammals, birds, reptiles and flora living along Senegal's

mangrove-dotted river banks. He wants to ensure the fragile ecosystem is around for future generations to enjoy.

“I don’t want to wait for an animal species to be endangered to bring protection,” he says. “Some animal species like the rhinoceros are endangered and the struggle to protect them is hard because we did not try to do that earlier,” says the 29-year-old YALI Network member who hopes to work in Senegal’s tourism industry or with a nonprofit devoted to wildlife and environmental protection.

Senegal stretches from the semiarid Sahel savanna in the north to tropical forest with in the south. It spans wooded hills in the southeast to mangrove-lined estuaries on the Atlantic. The country’s wildlife includes terns, lions, elephants, giraffes, hippopotamus, manatees, turtles and gazelles. It hosts a variety of coastal birds and wetland and grassland waterfowl. Reptiles range from snakes, lizards and crocodile species.

A lowland waterway in Senegal. (@ AP Images)

Ndiaga thinks his nation is ideal for a diverse industry devoted to hosting guests that appreciate its cultural and environmental resources. Already a tourist destination for many Europeans, Senegal has the potential to attract even more visitors from the United States and Asia and to create “green” jobs, he believes.

> *“My goal is to polish the image of Senegal,” Ndiaga says, adding that “if we want to develop ecotourism, we must protect the wildlife.”*

Faye Ndiaga, right, and a friend examine a beached sea turtle. (Courtesy of Faye Ndiaga)

The environmentalist says that by raising public awareness of the need to protect endangered species, Senegal can avoid harmful practices like the unnecessary hunting of migratory birds. He stresses that protecting natural resources is the responsibility of all nations. “Protect animals before they are endangered,” Ndiaga implores.

Ndiaga’s dream for a responsibly-developed ecotourism industry in Senegal has support. He notes that Senegal’s government acts to protect the environment in several ways. It “encourages its citizens to work more to protect the environment,” protects its parks and wildlife reserves through a national forest agency, and provides safe refuge to endangered species imported from other countries, he says.

In Defense of Wildlife

Ivory seized from the illegal wildlife trade (Thinkstock)

At a laboratory in Ashland, Oregon, carved chalices, dagger handles and ornate jewelry await inspection. They arrive in packages sealed with tamper-proof red tape, instead of the molten wax of days gone by. They are dispersed down a long white corridor to 14 scientists.

The skilled teams try to uncover the narrative of killings, determining who the victims were, how they died, where, when and at whose hands — only they do it with fur, feathers, tusks and claws, some of which have become objects of art.

The wildlife trade is one of the world's oldest forms of currency, but today's wildlife poaching and trafficking have expanded into a more serious business. One of the most lucrative of transnational crimes, it generates revenues conservatively estimated as high as $19 billion a year. Countless species have been hunted to the brink of extinction, from turtles to tigers. Populations are further imperiled by habitat loss and ecosystem damage stemming from illegal logging and development pressures.

A 2014 global operation spanning 28 countries and supported by the U.S. Department of State, the U.S. Agency for International Development, and the U.S. Fish and Wildlife Service has resulted in more than 400 arrests of wildlife criminals and 350 major wildlife seizures across Africa and Asia.

But efforts to prosecute violators were hindered before the U.S. Fish and Wildlife Service Forensics Laboratory opened in Oregon. Since then, the lab has been providing analytical services and expert witness testimony so that people illegally preying on wildlife face fines and jail time.

Said Ken Goddard, director of the lab: "You're there to tell the truth and what your science has found. Have you been able to link the suspect, victim and crime scene with the physical evidence?"

Roughly 150,000 pieces of evidence are sent to the lab each year. Its earliest cases involved big-game kills — typically one-hunter, one-animal cases. The lab receives evidence that suggests an escalating demand for wildlife parts: rhino horn, which is more valuable per gram than gold, elephant ivory and bear gall bladders.

But how do scientists know if an ivory bracelet is from an elephant, narwhal, mammoth or hippopotamus? The lab's colony of flesh-eating beetles, which skeletonize bones for identification, won't always suffice. Nor will its three-dimensional scans of valuable museum specimens meant to compare skulls and other bones.

But one state-of-the-art instrument available in the lab reveals an item's chemical components, helping scientists identify species. Another can beam an ultraviolet laser on a speck of blood to detect hemoglobin molecules, which have characteristics particular to each species.

Beyond the lab, an arsenal of innovative technology is targeting illegal wildlife trafficking. "There are 13 million people in southern Africa directly employed in the safari business and probably twice as many in indirect roles," said Maryland-based computer scientist Tom Snitch. "The bottom line is,

if there are no animals, all these jobs will be lost." Snitch mobilizes rangers to stop poachers with algorithms — that is, drones programmed with his calculations. Historical data on poaching patterns, wildlife movement, vegetation and weather are all a part of the math.

At the lab, Goddard and his team have hosted scientists from around the country. A visit in 2014 by Asis Perez, director of the Philippines' Bureau of Fisheries and Aquatic Resources, opened the door to collaboration with that country's wildlife investigators. Goddard showed Perez an ivory tusk dyed blue to demonstrate how fingerprints are pulled up. The scientists found that the tusks were from elephants in southern Africa. The bullet impact suggested the herds had been shot from above, probably from a helicopter. The other three tons of ivory were sent to Denver to be crushed.

'Let's All Go Green'

Mavis Nduchwa enjoys one of her "wow moments" of appreciating the view in the Makgadikgadi salt pans. A meerkat, common in the deserts of Botswana, perches on her knee. (Courtesy of Mavis Nduchwa)

One evening in Botswana's Okavango Delta, YALI Network member Mavis Nduchwa attended a dinner with the late South African conservation pioneer Ian Player. The founder of the Wilderness Foundation in South Africa and the United Kingdom, and of the WILD Foundation in the United States, "made me realize the important role I can play in helping to conserve nature," Nduchwa recalls.

Now a manager of Planet Baobab, a travel lodge at the edge of Botswana's Makgadikgadi salt pans southeast of the delta, Nduchwa helps guests appreciate and protect their surroundings.

> *"I cannot imagine my life without wildlife,"*

she says. Linking conservation with her livelihood, she stresses that her park job has allowed her to build a house and to send her nieces and nephews to school.

The Makgadikgadi pans, in the middle of northeastern Botswana's dry savanna, are the remains of an enormous lake that once covered an area larger than Switzerland. The area makes up one of the largest salt flats in the world. During the harsh dry season, the salty desert has little plant life. But following the rainy season, the pans become a critical habitat for migrating animals, including wildebeest, zebra, white pelicans and greater flamingos.

While the government of Botswana is addressing threats to the environment like deforestation,

erosion, and illegal hunting, Nduchwa feels more can be done. She suggests training educators about conservation so they can teach the public about what everyone can do to use natural resources carefully. She says conservation outreach to people who live in rural areas and don't have access to radio messaging is particularly needed.

"People should understand that it is our responsibility to look after our environment," Nduchwa believes. "They should understand why they should not walk past a plastic bag or a can in the wild. With the right knowledge of the damage that does to the environment, individuals can do a lot. We need to empower them with knowledge."

Mavis Nduchwa takes a break from managing the Planet Baobab lodge in Botswana's Makgadikgadi salt pans.(Mavis Nduchwa)

Nduchwa is doing her own part. She volunteers at local schools, helping students understand "the importance of looking after our environment." And she teaches local women about farming methods that are safe for the environment, like using crop stems to feed pigs and chicken manure instead of chemicals to fertilize gardens.

Nduchwa adds that businesses, too, can partner with communities to help conserve natural resources and protect wildlife. Planet Baobab, for example, has adopted conservation practices like having guests and employees refill their plastic water bottles instead of disposing of them when they are empty.

Nduchwa says that using environment-friendly practices can be good for businesses' bottom lines. "More companies and individuals would want to associate themselves with such businesses," she notes, adding that she prefers to buy from businesses that sell products made from recycled materials like paper and plastic.

That recycling also generates jobs, she notes, pointing to the women weavers who make and sell hats, mats and even greeting cards out of recycled materials.

"I always like to see a clean environment around us," Nduchwa says, adding that her village won an award for being the country's "most clean village."

Nduchwa suggests that teachers can get young people involved in conservation by organizing them to collect discarded cans and bottles for recycling or for use in their school science projects. "Make the experience as fun as possible," she suggests.

"Let's teach our kids to conserve while they are still young," she says. "Let's all go green."

Join #YALIGoesGreen this month. Learn how to get involved at yali.state.gov/climate

Conservation: Good for the Economy, Good for the Future

Mantoa Moiloa (Courtesy of Mantoa Moiloa)

Up in the highest nature reserve in Africa accessible by motor vehicle, Mantoa Moiloa teaches people how to take care of the land and the animals and plants living on it.

“My passion for my country influenced my decision in a career,” says the 33-year-old Lesotho park manager and 2014 Mandela Washington Fellow. “I want to protect the beauty of the Mountain Kingdom for future generations.”

Moiloa manages the Bokong Nature Reserve, one of the Lesotho Northern Parks in the southern African country. It’s a position that has helped her understand that conservation and business have close ties. Lesotho “boasts” of its areas’ natural beauty, she exclaims. “We are bound to conserve our natural environment so as to keep our tourism business going,” she adds.

Moiloa holds a bachelor’s degree in technology in ecotourism management from Tshwane University of Technology. She recently transferred to Bokong from the Liphofung Cave cultural and historical site nearby.

The conservationist works on many fronts to protect her country’s natural resources. She helps Lesotho’s community conservation groups identify and approve infrastructure restoration projects. She is involved with conservation awareness campaigns and helps law enforcement officers in efforts to stop illegal wildlife poaching.

While most of Lesotho’s most beautiful but fragile lands are protected by the government, Moiloa would like to see public officials establish an independent body to manage those areas and the country’s budding ecotourism industry. That body could reach out to international partners to help it identify other areas in the country deserving of national protection and conduct environmental impact assessments of proposed development projects, she says. It also could develop local and international marketing campaigns to entice visitors to Lesotho, touting the country’s geography and wildlife.

Moiloa says ecotourism can benefit Lesotho’s citizens economically. Job-creating businesses include those that sell handicrafts made by people living in the area; guide horseback-riding, hiking and bicycling tours to remote areas; offer cultural performances; and provide meals and overnight accommodations at lodges, in homes and at camps.

A lion rests in a protected park area of Lesotho. (Courtesy of Mantoa Moiloa)

Moiloa says environmentally friendly businesses can help make conservation a nationwide behavior, encouraging employees to use at home the same resource-saving practices they use at work. Such businesses “help the sustainable use of natural resources, conserving them for the next generation,”

she says.

Moiloa says one way people can protect their natural surroundings is to adopt environmentally friendly lifestyles. That means doing things like recycling paper and glass products, reusing shopping bags, composting organic matter for garden fertilizer, using only the amount of water needed, not discharging pollutants into the air or water, and hunting and fishing legally.

So far, Moiloa, originally from Botha-Bothe, says that "only people in the communities near natural protected areas are aware of environmentally friendly ways of living."

Long-term, Moiloa hopes that all Lesotho schools will teach students about the environment and conservation — lessons that are easily learned at a young age, she notes.

She urges other YALI Network members to do their part for conservation by pledging to plant at least one tree a year. "Let's use our resources sustainably," she implores. "The legacy of your grandchildren is in your hands."

Our Heritage, Our Charge

by: Resson Kantai Duff, projects officer with Save the Elephants

A caravan of elephants crosses a road in the Masai Mara National Reserve. (Matt Biddulph/flickr)

The complexity of the African continent and its diverse environment cannot be described succinctly. Too many times however, the "African" environment has been boxed into one contiguous land with wide-open plains, wet forests and desert-scapes, and one people living in this vast landscape, teeming with wildlife. Each African country has a rich and unique biodiversity, which, in many cases, is inextricably linked to our cultures. We have every reason to be proud. As young African leaders, we must recognize that with this amazing heritage comes great responsibility to protect, to nurture, and to define the narrative that underpins that nature. Put simply, it is up to us to decide where nature and conservation fit in at this time of "Africa rising."

In many countries in sub-Saharan Africa, wildlife and the environment have languished at the bottom of the national agenda. Understaffed and underfunded government units were expected to oversee it all. But these units often alienated people from their ancestral resources. As a young girl growing up in Kenya, I often heard people use the phrase "wanyama wa serikali" – the government's wildlife. In Kenya, it is only in recent years that the narrative of community conservation – where communities are empowered to manage and reap benefits from wildlife – is taking root in pastoral lands. This is a development I have watched and celebrated, as both an urban Maasai and an

academic conservationist.

Still, with such an entrenched belief that the environment is not their responsibility, people's attitudes toward wildlife are slow to evolve, especially in agricultural lands where human-wildlife conflict is an issue. These negative attitudes have permeated policymaking. And as development takes center stage, railways, roads, pipelines, mines and human habitation eat away space for wildlife.

Resson Kantai Duff has turned her passion for wildlife conservation into a position with the Save the Elephants organization. (Sean Dundas)

Taking a step back, we have to ask: Why should wildlife take a more prominent role? Is there reason to celebrate them? Yes! Firstly, Africa is the world's richest continent in terms of natural resources, and the environment has given back to the continent in immeasurable ecosystem services. Ecological processes such as pollination, climate control, and water purification are essential for life, not to mention the baseline economic activities on which many of our economies depend. The wildlife themselves are great facilitators of some of these processes, pollinating, breaking down waste and controlling pests. Elephants in equatorial forests, for example, disperse seeds no other agent can. Removing them from the ecosystem would cause the decline of important tree species and lead to a trophic cascade, exacerbating climate change.

For tourist destinations like Kenya and Tanzania, wildlife are of defining importance. If for one reason or another tourists cannot see wildlife, wildlife tourism ceases to be. This affects everyone from the communities who rely on tourism to the managers in the hotels and the vegetable sellers on the streets. For me personally, it has been painful to watch friends employed in the lodges and hotels around our research camp being laid off as our tourism slump continues.

Yet it has taken a wildlife crime wave of catastrophic proportions to wake us up to wildlife's value. Elephants, rhinos, pangolins and big cats are just some of the species under threat from the illegal wildlife trade. They are a recent whispering memory.

Perhaps it is the world's collective ownership of African megafauna that is crowding out homegrown solutions to these problems. This global ownership has invited a slew of internationally crafted solutions for the problems we face. But with a plethora of African scientists, advocates and policymakers, and with vibrant youth to take up these positions, we can work for the betterment of our environment, and our future.

So far, my part in the story has been small, but I take great pride in it. As I concentrate on understanding the intricacies of the ivory trade, I am beginning to see how crucial it is for us to tackle our own problems. Everyone must play their part. It will take brave leaders to root out the corruption that allows our wildlife to leave our continent in proverbial body bags. It will take young policymakers to ensure the environment is considered in tandem with development. It will take creative inventors to think up innovative solutions to human wildlife conflict. It will take communities and landowners to secure and respect wildlife on their properties. It will take diplomats

and campaigners to build bridges of awareness with wildlife consumer countries. It will take concerned urbanites and civil society groups to pressure governments to keep wildlife conservation on the national agenda. And it will take everyone to build a collective sense of pride and ownership for our wildlife.

No one else will suffer this loss more than the youth of Africa. No one else has so much to gain.

Resson Kantai Duff is projects officer with Save the Elephants, a leading elephant research and conservation organization headquartered in Kenya. An urban Maasai and academic conservationist, Kantai Duff is passionate about Africa's environmental heritage and committed to its preservation.

Nine Careers in Wildlife Conservation

A baby hyena rests in South Africa.

Whether it is raising awareness among family and friends or volunteering at a local sanctuary, everyone can be an advocate for wildlife conservation. If you want to elevate your advocacy into a career, consider one of these nine options:

Wildlife Biologist

If you are passionate about wildlife and skilled in science, a career as a biologist might be for you. Wildlife biologists study animals and their habitats. They observe their physical characteristics and behaviors. They watch how they interact with each other and their ecosystem. They use this information to prepare reports on wildlife management, conservation, habitat restoration and natural resource management, among other topics. They can work outdoors, in laboratories or offices, and often collaborate with other professionals on this list.

Conservationist

Conservationists identify lands worthy of conservation. Whether working for a nonprofit organization or a national government, conservationists research the natural and cultural significance of certain lands, then develop recommendations and, if necessary, acquisition strategies. This requires that conservationists work with wildlife biologists, land owners and real estate professionals on a regular basis.

Wildlife biologists, veterinarians and rehabilitators can work with exotic animals, domestic animals or livestock, such as the cows above.

Health Professional

Both wildlife veterinarians and rehabilitators look after the health of animals. Wildlife veterinarians are licensed to sedate, examine and vaccinate wild animals, among other responsibilities. These veterinarians often work closely with wildlife rehabilitators, who provide medical support to injured, sick or orphaned animals with the hope of returning these animals to the wild. Both veterinarians and rehabilitators can work for commercial and private game reserves as well as livestock farms and national parks.

Park Ranger

Whether serving a national park or a private facility, park rangers protect the parks and ensure the safety of visitors. Park rangers greet visitors, explain the facilities available for public use and inform them of the park's natural and cultural history. Park rangers help implement plans aimed at managing wildlife, restoring vegetation and conserving water. To keep others informed of the park's daily activities, park rangers also prepare reports on everything from the amount of fees collected to the type of game spotted.

Park rangers, safari guides, game wardens and wildlife law enforcement officers all have a role to play in conserving local wildlife.

Law Enforcement Professional

If you have an interest in law enforcement and wildlife, you have several options. Game wardens, for example, are responsible for enforcing the rules of their game park. This includes rules related to hunting and poaching. Wildlife law enforcement officers, on the other hand, have a broader perspective. They are responsible for enforcing national laws and international agreements. They often work with game wardens to provide guidance on implementing national and international rules.

Policy Advocate

Policy advocates seek to influence local, national and international legislators to pass laws that promote wildlife conservation. A policy advocate working for a game park, for example, might work with game park management to establish consensus on what is best for the park and its wildlife. With this consensus established, the policy advocate would then work with legislators to ensure that the laws they pass align with this consensus.

Curators and photographers play an important role in conservation by raising awareness and inspiring action among people who may never see these animals in the wild.

Exhibit Curator

Exhibit curators tell the story of wildlife and the community it lives in. To do so, they develop everything from pamphlets and magazines to short videos and interactive plays. Each piece is designed to educate the public and raise awareness about the wildlife and its environment. This job

requires collaborating with writers and designers to create these pieces while working with biologists and other experts to ensure the information is accurate and accessible.

Wildlife Photographer

If you enjoy travel, wildlife and photography, this might be the career for you. As the name implies, wildlife photographers capture photographs and videos of wild animals. Their work can be scientific, promotional or educational. For example, they can help create a photographic database of nearby wildlife for identification purposes. They can place their photography in promotional materials to generate buzz for a local wildlife sanctuary. Or, perhaps most well known, they can submit their photography to major publications to raise awareness of local wildlife and the need to conserve it.

Fundraiser

The good work of the wildlife biologist and the exhibit curator would be lost if it were not for the fundraiser. Fundraisers secure financial support from private donors to ensure game parks, wildlife sanctuaries and other wildlife habitats can prosper. Their work includes maintaining relationships with existing donors, developing relationships with potential donors and finding new ways their organizations can raise money.

Six Ways You Can Do Your Part to Conserve Wildlife

Elephants are just one of Africa's iconic species — and one of the world's most vulnerable.

There are more than 7 billion people on Earth. Imagine if every one of us committed to do one thing — no matter how small — to protect wildlife every day. Even minor actions can have a major impact when we all work together. Here are ways you can make a difference:

Philip recycles discarded and disinfected plastics into sheets through the organization Full Circle Africa.

1.Pitch In.

Trash isn't just ugly, it's harmful. Birds can trap their heads in plastic rings. Fish can get stuck in nets. Plus, trash pollutes everyone's natural resources. Do your part by putting trash in its place and keeping your community clean.

2. Recycle.

Find new ways to use things you already own. Manoh Philip Sesay, a YALI Network member in Sierra Leone, uses discarded plastics to create shopping bags, handbags and computer bags.

3. Restore.

Habitat destruction is the main threat to 85 percent of all threatened and endangered species, according to the International Union for Conservation of Nature. You can help reduce this threat by planting native trees or cleaning up beaches in your area.

4. Join.

Whether you're more interested in protecting natural habitats or preventing wildlife trafficking, find the organization that speaks to your passion. If such an organization doesn't exist in your community, create one!

Organizations such as Save the Rhino provide volunteer opportunities in Kenya, Uganda and Zimbabwe.

5. Volunteer.

One way to support an organization is to donate your time. Many offer volunteer programs. You can help clean beaches, rescue wild animals or teach tourists about your local habitat.

6. Speak Up.

Share your passion for wildlife conservation with your family. Tell your friends how they can help. Ask everyone you know to do what they can to help conserve Africa's wildlife.